

RECEIVED

JAN 30 2003

TECH CENTER 1600/2900

1600

#15  
DUS 2/11/03RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/541,462BDATE: 01/24/2003  
TIME: 13:17:53Input Set : A:\5470-255.ST25.txt  
Output Set: N:\CRF4\01242003\I541462B.raw

3 <110> APPLICANT: University of North Carolina at Chapel Hill  
 4 Xiong, Yue  
 5 Ohta, Tomohiko  
 7 <120> TITLE OF INVENTION: ISOLATION OF ROC1 AND ROC2  
 9 <130> FILE REFERENCE: 5470-255  
 11 <140> CURRENT APPLICATION NUMBER: US 09/541,462B  
 12 <141> CURRENT FILING DATE: 2000-03-21  
 14 <160> NUMBER OF SEQ ID NOS: 41  
 16 <170> SOFTWARE: PatentIn version 3.1  
 18 <210> SEQ ID NO: 1  
 19 <211> LENGTH: 327  
 20 <212> TYPE: DNA  
 21 <213> ORGANISM: Homo sapiens  
 23 <220> FEATURE:  
 24 <221> NAME/KEY: CDS  
 25 <222> LOCATION: (1)..(324)  
 26 <223> OTHER INFORMATION:

W--> 29 <400> 1 48  
 30 atg gcg gca gcg atg gat gtg gat acc ccg agc ggc acc aac agc ggc  
 31 Met Ala Ala Ala Met Asp Val Asp Thr Pro Ser Gly Thr Asn Ser Gly  
 32 1 5 10 15 96  
 34 ggc ggc aag aag cgc ttt gaa gtg aaa aag tgg aat gca gta gcc ctc  
 35 Ala Gly Lys Lys Arg Phe Glu Val Lys Lys Trp Asn Ala Val Ala Leu  
 36 20 25 30 144  
 38 tgg gcc tgg gat att gtg gtt gat aac tgt gcc atc tgc agg aac cac  
 39 Trp Ala Trp Asp Ile Val Val Asp Asn Cys Ala Ile Cys Arg Asn His  
 40 35 40 45 192  
 42 att atg gat ctt tgc ata gaa tgt caa gct aac cag gcg tcc gct act  
 43 Ile Met Asp Leu Cys Ile Glu Cys Gln Ala Asn Gln Ala Ser Ala Thr  
 44 50 55 60 240  
 46 tca gaa gag tgt act gtc gca tgg gga gtc tgt aac cat gct ttt cac  
 47 Ser Glu Glu Cys Thr Val Ala Trp Gly Val Cys Asn His Ala Phe His  
 48 65 70 75 80 288  
 50 ttc cac tgc atc tct cgc tgg ctc aaa aca cga cag gtg tgt cca ttg  
 51 Phe His Cys Ile Ser Arg Trp Leu Lys Thr Arg Gln Val Cys Pro Leu  
 52 85 90 95 327  
 54 gac aac aga gag tgg gaa ttc caa aag tat ggg cac tag  
 55 Asp Asn Arg Glu Trp Glu Phe Gln Lys Tyr Gly His  
 56 100 105  
 59 <210> SEQ ID NO: 2  
 60 <211> LENGTH: 108  
 61 <212> TYPE: PRT  
 62 <213> ORGANISM: Homo sapiens

ENTERED

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/541,462B

DATE: 01/24/2003  
TIME: 13:17:53

Input Set : A:\5470-255.ST25.txt  
Output Set: N:\CRF4\01242003\I541462B.raw

64 <400> SEQUENCE: 2  
66 Met Ala Ala Ala Met Asp Val Asp Thr Pro Ser Gly Thr Asn Ser Gly  
67 1 5 10 15  
70 Ala Gly Lys Lys Arg Phe Glu Val Lys Lys Trp Asn Ala Val Ala Leu  
71 20 25 30  
74 Trp Ala Trp Asp Ile Val Val Asp Asn Cys Ala Ile Cys Arg Asn His  
75 35 40 45  
78 Ile Met Asp Leu Cys Ile Glu Cys Gln Ala Asn Gln Ala Ser Ala Thr  
79 50 55 60  
82 Ser Glu Glu Cys Thr Val Ala Trp Gly Val Cys Asn His Ala Phe His  
83 65 70 75 80  
86 Phe His Cys Ile Ser Arg Trp Leu Lys Thr Arg Gln Val Cys Pro Leu  
87 85 90 95  
90 Asp Asn Arg Glu Trp Glu Phe Gln Lys Tyr Gly His  
91 100 105

94 <210> SEQ ID NO: 3

95 <211> LENGTH: 342

96 <212> TYPE: DNA

97 <213> ORGANISM: Homo sapiens

99 <220> FEATURE:

100 <221> NAME/KEY: CDS

101 <222> LOCATION: (1)..(339)

102 <223> OTHER INFORMATION:

W--> 105 <400> 3  
106 atg gcc gac gtg gaa gac gga gag gaa acc tgc gcc ctg gcc tct cac 48  
107 Met Ala Asp Val Glu Asp Gly Glu Glu Thr Cys Ala Leu Ala Ser His  
108 1 5 10 15  
110 tcc ggg agc tca ggc tca acg tcg gga ggc gac aag atg ttc tcc ctc 96  
111 Ser Gly Ser Ser Gly Ser Thr Ser Gly Gly Asp Lys Met Phe Ser Leu  
112 20 25 30  
114 aag aag tgg aac ccg gtg gcc atg tgg agc tgg gac gtg gag tgc gat 144  
115 Lys Lys Trp Asn Pro Val Ala Met Trp Ser Trp Asp Val Glu Cys Asp  
116 35 40 45  
118 acg tgc gcc atc tgc agg gtc cag gtg atg gat gcc tgt ctt aga tgt 192  
119 Thr Cys Ala Ile Cys Arg Val Gln Val Met Asp Ala Cys Leu Arg Cys  
120 50 55 60  
122 caa gct gaa aac aaa caa gag gac tgt gtt gtg gtc tgg gga gaa tgt 240  
123 Gln Ala Glu Asn Lys Gln Glu Asp Cys Val Val Val Trp Gly Glu Cys  
124 65 70 75 80  
126 aat cat tcc ttc cac aac tgc tgc atg tcc ctg tgg gtg aaa cag aac 288  
127 Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn  
128 85 90 95  
130 aat cgc tgc cct ctc tgc cag cag gac tgg gtg gtc caa aga atc ggc 336  
131 Asn Arg Cys Pro Leu Cys Gln Gln Asp Trp Val Val Gln Arg Ile Gly  
132 100 105 110  
134 aaa tga 342  
135 Lys  
139 <210> SEQ ID NO: 4  
140 <211> LENGTH: 113

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/541,462B

DATE: 01/24/2003  
TIME: 13:17:53

Input Set : A:\5470-255.ST25.txt  
Output Set: N:\CRF4\01242003\I541462B.raw

141 <212> TYPE: PRT  
142 <213> ORGANISM: Homo sapiens  
144 <400> SEQUENCE: 4  
146 Met Ala Asp Val Glu Asp Gly Glu Glu Thr Cys Ala Leu Ala Ser His  
147 1 5 10 15  
150 Ser Gly Ser Ser Gly Ser Thr Ser Gly Gly Asp Lys Met Phe Ser Leu  
151 20 25 30  
154 Lys Lys Trp Asn Pro Val Ala Met Trp Ser Trp Asp Val Glu Cys Asp  
155 35 40 45  
158 Thr Cys Ala Ile Cys Arg Val Gln Val Met Asp Ala Cys Leu Arg Cys  
159 50 55 60  
162 Gln Ala Glu Asn Lys Gln Glu Asp Cys Val Val Val Trp Gly Glu Cys  
163 65 70 75 80  
166 Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn  
167 85 90 95  
170 Asn Arg Cys Pro Leu Cys Gln Gln Asp Trp Val Val Gln Arg Ile Gly  
171 100 105 110  
174 Lys  
178 <210> SEQ ID NO: 5  
179 <211> LENGTH: 33  
180 <212> TYPE: DNA  
181 <213> ORGANISM: Artificial sequence  
183 <220> FEATURE:  
184 <223> OTHER INFORMATION: Synthetic oligonucleotide primer  
186 <400> SEQUENCE: 5  
187 tttaaagaga aataggatcc catgagcaac gaa 33  
190 <210> SEQ ID NO: 6  
191 <211> LENGTH: 33  
192 <212> TYPE: DNA  
193 <213> ORGANISM: Artificial sequence  
195 <220> FEATURE:  
196 <223> OTHER INFORMATION: Synthetic oligonucleotide primer  
198 <400> SEQUENCE: 6  
199 ttaaatgtt acgggaaatt catttttca cct 33  
202 <210> SEQ ID NO: 7  
203 <211> LENGTH: 33  
204 <212> TYPE: DNA  
205 <213> ORGANISM: Artificial sequence  
207 <220> FEATURE:  
208 <223> OTHER INFORMATION: Synthetic oligonucleotide primer  
210 <400> SEQUENCE: 7  
211 ggcaatacag attaggatcc tatgaaagtt aaa 33  
214 <210> SEQ ID NO: 8  
215 <211> LENGTH: 33  
216 <212> TYPE: DNA  
217 <213> ORGANISM: Artificial sequence  
219 <220> FEATURE:  
220 <223> OTHER INFORMATION: Synthetic oligonucleotide primer  
222 <400> SEQUENCE: 8

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/541,462B

DATE: 01/24/2003  
TIME: 13:17:53

Input Set : A:\5470-255.ST25.txt  
Output Set: N:\CRF4\01242003\I541462B.raw

223 aattgtgatt tctagaattc ttttttatcg taa	33
226 <210> SEQ ID NO: 9	
227 <211> LENGTH: 33	
228 <212> TYPE: DNA	
229 <213> ORGANISM: Artificial sequence	
231 <220> FEATURE:	
232 <223> OTHER INFORMATION: Synthetic oligonucleotide primer	
234 <400> SEQUENCE: 9	
235 atccccatgg ctatgataac taataagaaa ata	33
238 <210> SEQ ID NO: 10	
239 <211> LENGTH: 33	
240 <212> TYPE: DNA	
241 <213> ORGANISM: Artificial sequence	
243 <220> FEATURE:	
244 <223> OTHER INFORMATION: Synthetic oligonucleotide primer	
246 <400> SEQUENCE: 10	
247 ctgcagact cgtaggaaa ggtaatggta ata	33
250 <210> SEQ ID NO: 11	
251 <211> LENGTH: 33	
252 <212> TYPE: DNA	
253 <213> ORGANISM: Artificial sequence	
255 <220> FEATURE:	
256 <223> OTHER INFORMATION: Synthetic oligonucleotide primer	
258 <400> SEQUENCE: 11	
259 atccccatgg ctatgataaa tgagagcggt tcc	33
262 <210> SEQ ID NO: 12	
263 <211> LENGTH: 33	
264 <212> TYPE: DNA	
265 <213> ORGANISM: Artificial sequence	
267 <220> FEATURE:	
268 <223> OTHER INFORMATION: Synthetic oligonucleotide primer	
270 <400> SEQUENCE: 12	
271 agctcggtcga catttagtact tgtaagttgc tat	33
274 <210> SEQ ID NO: 13	
275 <211> LENGTH: 33	
276 <212> TYPE: DNA	
277 <213> ORGANISM: Artificial sequence	
279 <220> FEATURE:	
280 <223> OTHER INFORMATION: Synthetic oligonucleotide primer	
282 <400> SEQUENCE: 13	
283 atccccatgg ctatgtcatt tcagattacc cca	33
286 <210> SEQ ID NO: 14	
287 <211> LENGTH: 33	
288 <212> TYPE: DNA	
289 <213> ORGANISM: Artificial sequence	
291 <220> FEATURE:	
292 <223> OTHER INFORMATION: Synthetic oligonucleotide primer	
294 <400> SEQUENCE: 14	
295 agctcggtcga catcatgagt ttttatgccc att	33

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/541,462B

DATE: 01/24/2003  
TIME: 13:17:53

Input Set : A:\5470-255.ST25.txt  
Output Set: N:\CRF4\01242003\I541462B.raw

298 <210> SEQ ID NO: 15  
299 <211> LENGTH: 15  
300 <212> TYPE: PRT  
301 <213> ORGANISM: Artificial sequence  
303 <220> FEATURE:  
304 <223> OTHER INFORMATION: Synthetic peptide  
306 <400> SEQUENCE: 15  
308 Cys Met Ala Ala Ala Met Asp Val Asp Thr Pro Ser Gly Thr Asn  
309 1 5 10 15  
312 <210> SEQ ID NO: 16  
313 <211> LENGTH: 13  
314 <212> TYPE: PRT  
315 <213> ORGANISM: Artificial sequence  
317 <220> FEATURE:  
318 <223> OTHER INFORMATION: Synthetic peptide  
320 <400> SEQUENCE: 16  
322 Cys Asp Asn Arg Glu Trp Glu Phe Gln Lys Tyr Gly His  
323 1 5 10  
326 <210> SEQ ID NO: 17  
327 <211> LENGTH: 9  
328 <212> TYPE: PRT  
329 <213> ORGANISM: Artificial sequence  
331 <220> FEATURE:  
332 <223> OTHER INFORMATION: Synthetic peptide  
334 <400> SEQUENCE: 17  
336 Cys Arg Gln Glu Trp Lys Phe Lys Glu  
337 1 5  
340 <210> SEQ ID NO: 18  
341 <211> LENGTH: 14  
342 <212> TYPE: PRT  
343 <213> ORGANISM: Artificial sequence  
345 <220> FEATURE:  
346 <223> OTHER INFORMATION: Synthetic peptide  
348 <400> SEQUENCE: 18  
350 Cys Arg Ser Gln Ala Ser Ala Asp Glu Tyr Ser Tyr Val Ala  
351 1 5 10  
354 <210> SEQ ID NO: 19  
355 <211> LENGTH: 60  
356 <212> TYPE: DNA  
357 <213> ORGANISM: Artificial sequence  
359 <220> FEATURE:  
360 <223> OTHER INFORMATION: Synthetic oligonucleotide primer  
362 <400> SEQUENCE: 19  
363 ttctccagtgcagagaactttaaagagaaatagttcaaccgatccccgggttaattaa 60  
366 <210> SEQ ID NO: 20  
367 <211> LENGTH: 60  
368 <212> TYPE: DNA  
369 <213> ORGANISM: Artificial sequence  
371 <220> FEATURE:

**VERIFICATION SUMMARY**

PATENT APPLICATION: **US/09/541,462B**

DATE: 01/24/2003

TIME: 13:17:54

Input Set : **A:\5470-255.ST25.txt**

Output Set: **N:\CRF4\01242003\I541462B.raw**

L:29 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:26  
L:105 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:3,Line#:102